**Nerve signaling depends on cells called**

Na channels to open

First causes

Dendrites receive stimuli from surroundings

Sensory neurons

3 Types are called

Neurons

Action Potentials via depolarization as Na enters the cell

Which cause

Such as light, sound, hunger, pain, dehydration, etc. that disrupt the -70 RMP of the neuron

Interneurons

K channels open, causing hyperpolarization as too much + charge leaves the cell

Na influx causes upstream regions to also become depolarized

Connect sensory neurons with efferent neurons in the brain

Maintained by Na/K pump powered by ATP in a resting neuron

But cell returns to

Efferent neurons

Represents integration processes throughout different regions in the brain (Memory, Motor, Vision, etc.)

Na & K channels mostly closed at RMP

Stimulate reactions in effectors that can be

Signal is propagated along the axon until it reaches the

Ca triggers vesicles to release neurotransmitters

Synaptic Terminal causing Ca to enter

Involuntary Responses

Voluntary Responses

Which stimulate continued nerve signaling during Integration & Response

Motion, Thinking

Gland & Organ Processes